

time of the invention in view of the cited references for the reasons set forth hereafter.

The § 103 Rejection In View Of Moore

The Examiner has rejected claims 13, 14, 16-23 and 28-31 under § 103 in view of Moore. The Examiner states that the claims would have been obvious to one skilled in the art based on Moore. Claim 13 is the sole independent claim and will be considered below.

Claim 13 claims a method of making a granular pesticide. The method includes the steps of coating a core material with an inner polymer membrane. The inner polymer membrane is formed in situ on the core material. A pesticide is then applied to the inner polymer membrane on the core material. An outer controlled release membrane is formed in situ on the pesticide. The outer controlled release membrane permits the controlled release of the pesticide. The Examiner acknowledges that Moore does not disclose the invention claimed in claim 13. As discussed hereafter, Moore also does not suggest or render obvious the invention claimed in claim 13.

Moore discloses an attrition resistant, controlled release fertilizer. The fertilizer includes a water-soluble central mass of plant food compound in particulate form

containing nucleophilic reaction functional groups chemically bonded to a base coating formed by reacting a molecular excess of a coupling agent, such as a polyisocyanate, with the nucleophilic groups of the central mass and a water-insoluble layer surrounding and chemically bonded with the base coating formed by the reaction and polymerization of excess functional groups of the coupling agent. As referred to by the Examiner, Moore states at column 5, line 55, that a water-insoluble coating as a component or additive to the coating can be an efficient way to distribute the plant food with, among other things, insecticides. Moore does not disclose or suggest the method for making the claimed controlled release pesticide. Moore does not disclose or suggest a method of making a granular pesticide comprising the steps of coating a core material with an inner polymer membrane formed in situ on the core material, then applying a pesticide to the inner polymer membrane on the core material and, thereafter, forming in situ an outer controlled release membrane on the pesticide, thereby permitting the controlled release of the pesticide. There is no suggestion in the Moore reference of a method of making a controlled release granular pesticide wherein an outer controlled release polymer membrane is formed in situ on a pesticide, the pesticide being applied to an inner

polymer membrane.

Based on the above, applicants respectfully request that the Examiner reconsider and withdraw the rejection under § 103 on the grounds that Moore does not disclose or suggest the claimed invention of claim 13.

For the reasons set forth above for claim 13, Moore does not disclose or suggest the additional elements in dependent claims 14, 16-23 and 28-31. Accordingly, applicants respectfully request that the Examiner reconsider and withdraw the § 103 rejection of these dependent claims based on Moore.

The § 103 Rejection Based On Cummings In View of Moore

In making the § 103 rejection, the Examiner states that (1) Cummings shows acephate on ammonium sulfate cores is desirable (page 5) but a sand core is not as unstable; (2) a binder is coated in situ on the core, then acephate is added (page 12, bottom); (3) Moore shows effective fertilizers can be coated with pesticides, insecticides (column 5, lines 55-58) and provides long controlled release periods, by applying multiple coatings. Based on the above, the Examiner states that dependent claims 15 and 24-27 would have been obvious to a person of ordinary skill in the art at the time the invention was made by utilizing the

insecticide of Cummings and the fertilizer of Moore.

Dependent claim 15 calls for a method of making a granular pesticide. It includes the steps of coating a core material of ammonium sulfate with an inner polymer membrane. The inner polymer membrane is formed in situ on the core material. An acephate pesticide is then applied to the inner polymer membrane on the core material of ammonium sulfate. Thereafter, an outer controlled release membrane is formed in situ on the acephate pesticide. This permits controlled release of the acephate pesticide. Dependent claims 24-27 include additional limitations to claim 15.

Cummings discloses an insecticide composition. The composition is said to consist of a sand core coated with a binder. The binder may be non-aqueous, non-volatile liquids. The binders said to be useful in the invention are at page 10 of the application. An insecticidally active phosphoroamidothioate is adhered to the binder-coated core. Cummings states that an Orthene® insecticide was coated on an ammonium sulfate core. Cummings states that the composition was expected to be satisfactory but that the ammonium sulfate core provided poor chemical stability. See page 5. Accordingly, the patent teaches away from coating ammonium sulfate with an insecticide.

Cummings does not disclose or suggest a method of

making a granular pesticide comprising the steps of coating a core material of ammonium sulfate with an inner polymer membrane where the inner polymer membrane is formed in situ on the ammonium sulfate. Cummings does not disclose or suggest applying an acephate pesticide to an inner polymer membrane on a core material of ammonium sulfate. Further, Cummings does not disclose or suggest forming an outer controlled release membrane in situ on the pesticide to permit controlled release of the pesticide.

Moore discloses an attrition resistant, controlled release fertilizer. The fertilizer includes a water-soluble central mass of plant food compound in particulate form containing nucleophilic reaction functional groups chemically bonded to a base coating formed by reacting a molecular excess of a coupling agent, such as a polyisocyanate, with the nucleophilic groups of the central mass and a water-insoluble layer surrounding and chemically bonded with the base coating formed by the reaction and polymerization of excess functional groups of the coupling agent. As referred to by the Examiner, Moore states at column 5, line 55, that a water-insoluble coating as a component or additive to the coating can be an efficient way to distribute the plant food with, among other things, insecticides. Moore does not disclose or suggest the method

for making the claimed controlled release pesticide. Moore does not disclose or suggest a method of making a granular pesticide comprising the steps of coating a core material with an inner polymer membrane formed in situ on the core material, then applying a pesticide to the inner polymer membrane on the core material and, thereafter, forming in situ an outer controlled release membrane on the pesticide, thereby permitting the controlled release of the pesticide. There is no suggestion in the Moore reference of a method of making a controlled release granular pesticide wherein an outer controlled release polymer membrane is formed in situ on a pesticide, the pesticide being applied to an inner polymer membrane.

Applicants respectfully submit that there is no basis for combining Cummings and Moore. Cummings teaches away from the use of an ammonium sulfate core with an insecticide. There is no suggestion in Cummings or Moore of providing a method of making a controlled release granular pesticide wherein an outer controlled release polymer membrane is formed in situ on a pesticide, the pesticide being applied to an inner polymer membrane.

Based on the above, applicants respectfully request that the Examiner reconsider and withdraw the rejection under § 103 of claims 15 and 24-27 on the grounds


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that the cited references do not disclose or suggest
applicants' claimed invention.

Reconsideration and allowance of the claims is
respectfully requested.

Respectfully submitted,

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